

Columbia Analytical Services, Inc.

1317 South 13th Street • P.O. Box 479 • Kelso, WA 98626 • (206) 577-7222 • Fax (206) 636-1068

Wa 6906
1.12.9
CAS

Lab

March 1, 1990

Bryant Adams
Pacific Wood Treating
111 West Division St.
Ridgefield, WA 98642

RE: Analysis of Water Samples Submitted 02-21-90

Dear Bryant:

Enclosed are the results of the water samples originally submitted to our lab on January 12, 1990. For your reference, our service request number for this work is K90555.

The sample extracts were concentrated and re-analyzed to achieve a lower method reporting limit.

Please call if you have any questions.

Respectfully submitted:

Colin Elliott

Colin Elliott
COLUMBIA ANALYTICAL SERVICES, INC.

bdr/CBE



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

CLIENT: Pacific Wood Treating
SUBMITTED BY: Bryant Adams
SAMPLE DESCRIPTION: Water

DATE RECEIVED: 01/12/90
DATE EXTRACTED: 01/15/90
DATE ANALYZED: 02/26/90
WORK ORDER #: K90555

Chlorinated Phenolic Compounds
EPA Methods 3510/Modified 8150
 $\mu\text{g/L}$

<u>Sample Name</u>	<u>Lab Code</u>	<u>MRL</u>	<u>Total Tetrachloro- phenols</u>	<u>Pentachloro- phenol</u>
RBT B-1	129-1	0.1	ND	ND
RBT B-4	129-2	0.1	ND	ND
RBT B-5	129-3	0.1	ND	ND
RBT T-8	129-4	0.1	ND	0.6
RBT T-9	129-5	0.1	ND	0.5

MRL means Method Reporting Limit

ND means None Detected at or above the MRL

Approved by Colin Elliott Date 3/7/90

Columbia Analytical Services, Inc.

1317 South 13th Avenue • P.O. Box 479 • Kelso, WA 98626 • (206) 577-7222 • Fax (206) 636-1068

CAS

February 1, 1990

Bryant Adams
Pacific Wood Treating
111 West Division St.
Ridgefield, WA 98642

RE: Goundwater Monitoring

Dear Bryant:

Enclosed are the results of the water samples submitted to our lab on January 12, 1990. For your reference, our service request number for this work is K90-129.

Please call if you have any questions.

Respectfully submitted:

Dave Edelman

Dave Edelman
COLUMBIA ANALYTICAL SERVICES, INC.

jeb/DLE

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

CLIENT: Pacific Wood Treating
SUBMITTED BY: Bryant Adams
SAMPLE DESCRIPTION: Water

DATE RECEIVED: 01/12/90
DATE EXTRACTED: 01/17/90
DATE ANALYZED: 01/23/90
WORK ORDER #: K90-129

Naphthalene Analysis
EPA Method 3510/8100
 $\mu\text{g/L}$ (ppb)

<u>Sample Name</u>	<u>Lab Code</u>	<u>MRL</u>	<u>Result</u>
RBT B-1	129-1	1	ND
RBT B-4	129-2	1	ND
RBT B-5	129-3	1	ND
RBT T-8	129-4	1	ND
RBT T-9	129-5	1	ND
Method Blank	129-MB	1	ND

MRL means Method Reporting Limit

ND means None Detected at or above the MRL

Approved by Dave Spelman Date 2/2/90

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

CLIENT: Pacific Wood Treating
SUBMITTED BY: Bryant Adams
SAMPLE DESCRIPTION: Water

DATE RECEIVED: 01/12/90
DATE EXTRACTED: 01/17/90
DATE ANALYZED: 01/23/90
WORK ORDER #: K90-129

EPA Polyaromatic Hydrocarbon Analysis
EPA Method 3510/8100
ug/L (ppb)

Sample Name:		RBT B-1	RBT T-8	RBT T-9
Lab Code:		<u>129-1</u>	<u>129-4</u>	<u>129-5</u>
	MRL			
Naphthalene	1	ND	ND	ND
Fluorene	2	ND	ND	ND
Phenanthrene	2	ND	ND	ND
Anthracene	2	ND	ND	ND
Fluoranthene	2	ND	ND	ND
Pyrene	2	ND	ND	ND

ND means None Detected

MDL means Method Detection Limit

Approved by Dave Solomon Date 2/8/90

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

CLIENT: Pacific Wood Treating
SUBMITTED BY: Bryant Adams
SAMPLE DESCRIPTION: Water

DATE RECEIVED: 01/12/90
DATE EXTRACTED: 01/17/90
DATE ANALYZED: 01/23/90
WORK ORDER #: K90-129

EPA Polyaromatic Hydrocarbon Analysis
EPA Method 3510/8100
ug/L (ppb)

Sample Name:		RBT B-4	RBT B-5
Lab Code:		<u>129-2</u>	<u>129-3</u>
	<u>MRL*</u>		
Naphthalene	1	ND	ND
Fluorene	3	ND	ND
Phenanthrene	3	ND	ND
Anthracene	3	ND	ND
Fluoranthene	3	ND	ND
Pyrene	3	ND	ND

* Elevated MRL value due to smaller sample size.

ND means None Detected

MDL means Method Detection Limit

Approved by Dave Edelman, / Date 2/8/90

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

CLIENT: Pacific Wood Treating
SUBMITTED BY: Bryant Adams
SAMPLE DESCRIPTION: Water

DATE RECEIVED: 01/12/90
DATE EXTRACTED: 01/15/90
DATE ANALYZED: 01/18/90
WORK ORDER #: K90-129

Chlorinated Phenolic Compounds
EPA Methods 3510/Modified 8150
 $\mu\text{g/L}$ (ppb)

<u>Sample Name</u>	<u>Lab Code</u>	<u>MRL</u>	<u>Total Tetrachloro- phenols</u>	<u>Pentachloro- phenol</u>
RBT B-1	129-1	5	ND	ND
RBT B-4	129-2	5	ND	ND
RBT B-5	129-3	5	ND	ND
RBT T-8	129-4	5	ND	ND
RBT T-9	129-5	5	ND	ND
Method Blank	129-MB	5	ND	ND

MRL means Method Reporting Limit

ND means None Detected at or above the MRL

Approved by Dave Edelman Date 2/2/90

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

CLIENT: Pacific Wood Treating
SUBMITTED BY: Bryant Adams
SAMPLE DESCRIPTION: Water

DATE RECEIVED: 01/12/90
DATE EXTRACTED: 01/16-18/90
DATE ANALYZED: 01/23/90
WORK ORDER #: K90-129

Pesticide/Herbicide Analysis
EPA Methods 3510/8080/8150
 $\mu\text{g/L}$ (ppb)

Sample Name:		RBT B-1	RBT B-4	RBT B-5
Lab Code:		<u>129-1</u>	<u>129-2</u>	<u>129-3</u>
	<u>MRL</u>			
Herbicides:				
2,4-D	50	ND	ND	ND
Silvex	5	ND	ND	ND
Pesticides:				
Endrin	0.1	ND	ND	ND
Lindane	0.5	ND	ND	ND
Methoxychlor	2	ND	ND	ND
Toxaphene	2	ND	ND	ND

MRL means Method Reporting Limit

ND means None Detected at or above the MRL

Approved by Dave Edelman Date 2/2/90

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

CLIENT: Pacific Wood Treating
SUBMITTED BY: Bryant Adams
SAMPLE DESCRIPTION: Water

DATE RECEIVED: 01/12/90
DATE EXTRACTED: 01/16-18/90
DATE ANALYZED: 01/23/90
WORK ORDER #: K90-129

Pesticide/Herbicide Analysis
EPA Methods 3510/8080/8150
 $\mu\text{g/L}$ (ppb)

Sample Name:		RBT T-8	Method Blank
Lab Code:		<u>129-4</u>	<u>129-MB</u>
	<u>MRL</u>		
Herbicides:			
2,4-D	50	ND	ND
Silvex	5	ND	ND
Pesticides:			
Endrin	0.1	ND	ND
Lindane	0.5	ND	ND
Methoxychlor	2	ND	ND
Toxaphene	2	ND	ND

MRL means Method Reporting Limit
ND means None Detected at or above the MRL

Approved by Dave Edelman Date 2/2/90

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

CLIENT: Pacific Wood Treating
SUBMITTED BY: Bryant Adams
SAMPLE DESCRIPTION: Water

DATE RECEIVED: 01/12/90
DATE ANALYZED: 01/19/90
WORK ORDER #: K90-129

Total Organic Halogens (TOX)
EPA Method 9020
 $\mu\text{g/L}$ (ppb)

<u>Sample Name</u>	<u>Lab Code</u>	<u>MRL</u>	<u>Measured Concentration</u>
RBT B-1	129-1	10	ND
RBT B-4	129-2	10	15
RBT B-5	129-3	10	22
RBT T-8	129-4	10	ND
RBT T-9	129-5	10	11

ND means None Detected at or above the MRL
MRL means Method Reporting Limit

Approved by Dave Edelma Date 2/2/90

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

CLIENT: Pacific Wood Treating
SUBMITTED BY: Bryant Adams
SAMPLE DESCRIPTION: Water

DATE RECEIVED: 01/12/90
WORK ORDER #: K90-129

Inorganic Parameters
mg/L

Sample Name:			RBT B-1	RBT B-4	RBT B-5
Lab Code:			<u>129-1</u>	<u>129-2</u>	<u>129-3</u>
	<u>Method</u>	<u>MRL</u>			
pH	150.1	-	7.48	7.70	7.28
Conductivity (umhos/cm)	120.1	2	140	134	120
Chloride	300.0	0.2	0.4	3.1	1.4
Fluoride	300.0	0.2	0.3	0.7	ND
Nitrogen, Nitrate	300.0	0.2	0.2	0.2	ND
Phenols, Total	420.1	0.02	ND	ND	ND
Sulfate	300.0	0.2	2.9	3.6	2.4
TOC	415.1	0.5	0.7	5.2	0.7
Turbidity (NTU)	180.1	1	9200	14700	630

ND means None Detected at or above the MRL
MRL means Method Reporting Limit

Approved by Mike Helton Date 2/2/90

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

CLIENT: Pacific Wood Treating
SUBMITTED BY: Bryant Adams
SAMPLE DESCRIPTION: Water

DATE RECEIVED: 01/12/90
WORK ORDER #: K90-129

Inorganic Parameters
mg/L

Sample Name:			RBT T-8	RBT T-9
Lab Code:			<u>129-4</u>	<u>129-5</u>
	<u>Method</u>	<u>MRL</u>		
pH	150.1	-	6.25	6.85
Conductivity (umhos/cm)	120.1	2	98	198
Chloride	300.0	0.2	4.7	2.9
Fluoride	300.0	0.2	ND	ND
Nitrogen, Nitrate	300.0	0.2	0.4	0.3
Phenols, Total	420.1	0.02	ND	ND
Sulfate	300.0	0.2	5.3	1.2
TOC	415.1	0.5	1.6	ND
Turbidity (NTU)	180.1	1	33	ND

ND means None Detected at or above the MRL
MRL means Method Reporting Limit

Approved by Mike Shelton Date 2/2/90

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

CLIENT: Pacific Wood Treating
SUBMITTED BY: Bryant Adams
SAMPLE DESCRIPTION: Water

DATE RECEIVED: 01/12/90
WORK ORDER #: K90-129

Dissolved Metals
mg/L

Sample Name:			RBT B-1	RBT B-4	RBT B-5
Lab Code:			<u>129-1</u>	<u>129-2</u>	<u>129-3</u>
	<u>Method</u>	<u>MPL</u>			
Arsenic	206.2	0.005	ND	0.007	ND
Barium	200.7	0.005	0.046	0.023	0.012
Cadmium	200.7	0.002	ND	ND	ND
Chromium	200.7	0.005	ND	ND	ND
Iron	200.7	0.02	0.49	0.07	0.04
Lead	239.2	0.002	0.009	0.002	ND
Manganese	200.7	0.005	0.013	0.010	ND
Mercury	245.1	0.0005	ND	ND	ND
Selenium	270.2	0.005	ND	ND	ND
Silver	200.7	0.01	ND	ND	ND
Sodium	200.7	0.1	9.7	55.9	8.7

ND means None Detected at or above MRL
MRL means Method Reporting Limit

Approved by

Mike Shelton

Date

2/2/90

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

CLIENT: Pacific Wood Treating
SUBMITTED BY: Bryant Adams
SAMPLE DESCRIPTION: Water

DATE RECEIVED: 01/12/90
WORK ORDER #: K90-129

Dissolved Metals
mg/L

Sample Name: Lab Code:			RBT T-8 <u>129-4</u>	RBT T-9 <u>129-5</u>
	<u>Method</u>	<u>MRL</u>		
Arsenic	206.2	0.005	ND	ND
Barium	200.7	0.005	0.030	0.024
Cadmium	200.7	0.002	ND	ND
Chromium	200.7	0.005	ND	ND
Iron	200.7	0.02	2.46	0.02
Lead	239.2	0.002	0.002	0.006
Manganese	200.7	0.005	0.650	ND
Mercury	245.1	0.0005	ND	ND
Selenium	270.2	0.005	ND	ND
Silver	200.7	0.01	ND	ND
Sodium	200.7	0.1	10.1	9.5

ND means None Detected at or above MRL
MRL means Method Reporting Limit

Approved by

Mike Shelton

Date

2/2/90

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

CHAIN OF CUSTODY RECORD

[illegible]

SAMPLING - Chain of Custody

K90-129

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

CHAIN OF CUSTODY RECORD

PROJ. NO.		PROJECT NAME		NO. OF CONTAINERS		REMARKS	
SAMPLERS: (Signature)		STATION LOCATION					
STA. NO.	DATE	TIME	COMP.	GRAB			
B-1	1/12/90	09:00			SE corner landfill		
T-8	1/12/90	10:20			Toe Drain, west end landfill		
T-9	1/19/90	12:30			(South) Ridge Road		
<p>Relinquished by: (Signature) <i>[Signature]</i> Date / Time 1/12/90 11:05 Received by: (Signature) <i>Bryant Adams</i></p> <p>Relinquished by: (Signature) Date / Time Received by: (Signature)</p> <p>Relinquished by: (Signature) <i>Bryant Adams</i> Date / Time 1/12/90 1:50 Received for Laboratory by: (Signature) <i>[Signature]</i> Date / Time 1/12/90 1:50 Remarks</p>							

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

SAMPLING - Chain of Custody

U.S. EPA Analytical Data

SITE: Ridgefield Brick and Tile

SAMPLE LOCATION: Cell Toe drain

SAMPLED BY: Tetra Tech Consultants

Sample Date: 23 May 1988

	TD-1	TD-2	TD-3	TD-4	Ave.	Blank
Constituent	Concentration in micrograms/l (ppb)					
Pentachlorophenol	0.14	0.73	0.082	0.22	0.29	0.034
Tetrachlorophenol	0.054	0.37	0.022	0.029	0.12	UD
Phenanthrene	0.4	0.5	0.40	0.2	0.38	UD.050
Fluorene	0.8	0.9	0.50	UD 0.7	0.725	UD.80
Naphthelene	1.5	1.8	UD 3.30	UD 3.5	1.65	UD 3.8
Anthracene	0.04	0.04	0.04	0.02	0.035	UD 0.1
Fluoranthene	0.1	0.1	0.1	UD 0.1	0.1	UD 0.1
11 other PAH's	UD	UD	UD	UD	UD	UD
Arsenic	UD 3.4			(6.0)	UD 3.4	
Chromium	UD 7.9			24	UD 7.9	
Copper	UD 24.8			UD 25	UD 25	
Iron	76,570			7,430	(88)	
VOC (all 34 tested)	UD	UD	UD	UD	UD	UD
beta radiation	-	-	-	1.5 pCi/l		
low alpha radiation	-	-	-	0.38 pCi/l		

CHAIN OF CUSTODY RECORD

SAMPLING - Chain of Custody

CHAIN OF CUSTODY RECORD

SAMPLING - Chain of Custody